

# **Are We Heading in the Right Direction? A Survey of USDA Forest Service Employees**

## **An Executive Summary of Survey Findings**

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# Are We Heading in the Right Direction? A Survey of USDA Forest Service Employees

## An Executive Summary of Survey Findings\*

What do Forest Service employees think of the Agency's mission? Do they detect changes in the Agency's program direction over the past 10 years? If so, is this a change in the right direction? What more can the Agency do to improve planning and implementation of resource programs? These were some of the questions addressed in a telephone survey of Forest Service employees recently completed at the University of Michigan's School of Natural Resources and Environment, in cooperation with the Forest Service's Policy Analysis Staff and North Central Forest Experiment Station. The survey was built around programs and positions defined in the Agency's 1990 RPA Strategic Plan.

### Study Design and Sample

The 1990 RPA Strategic Plan defines the Forest Service's mission, roles, and program direction for a five-year period. Using the statements contained in the 1990 RPA, we designed a series of questions to determine employee perceptions of Forest Service programs and activities. We wanted to know (1) if employees are familiar with Forest Service policy on a particular issue, (2) if employees think that the Agency's position on an issue has changed over the past 10 years, (3) if the change has been in the right direction, and, for some programs, (4) what else the Agency should be doing to improve its position. We also sought information on employees' perceptions of changes in the objectives of multiple use management over the past 10 years. In addition, we included background questions to provide information useful in stratifying the respondents.

We designed the sample to provide a statistically valid portrayal of views across various strata of the Forest Service. The strata we were interested in included functional position (line officer, professional staff, support staff, etc.) and discipline (range conservationists, wildlife managers, foresters, etc.). Information was also collected on background variables such as age, race, gender, educational level, and years of experience. Comparisons were made between groups on the basis of these variables.

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\* Presented to the USDA Forest Service Chief and staff in Washington, DC, on December 21, 1992

To produce statistically reliable results, it was necessary to interview more than 1,800 Forest Service employees. Individuals were selected using probability sampling techniques. The sample drawn was roughly half line officers (n=865) and half staff employees (n=944). Because we were interested in obtaining reliable information about various sub-groups of employees, these sub-groups were over-sampled in the study. Sub-groups falling into this category included upper line employees, upper staff employees, minorities, and women.

The break down of our sample by functional position is shown in Table 1. The category upper line includes the chief, associate chief, and deputy chiefs. At the research stations, upper line includes station directors, deputy station directors, and assistant station directors. We included regional foresters, deputy regional foresters, and forest supervisors in upper line, as well as the area director and deputy director of Northeastern Area State and Private Forestry. We tried to interview all employees in the upper line category. We defined the lower line category to include deputy forest supervisors, district rangers, and project leaders. We tried to interview all women and all minority employees in the lower line category. However, for a white male in the lower line position, the chance of being selected was more than 92 percent.

For staff employees, the chances of being selected for an interview were much less than for line employees. Upper staff includes staff employees with General Schedule (GS) ratings of 12 and above. An upper staff employee had less than a one in twenty chance of being selected for an interview. Middle staff includes staff employees with GS ratings between 7 and 11. The probability of selection into the sample from these functional positions was less than one in thirty. Lower staff includes staff employees with GS ratings of 6 and below. The chance of being selected from this category was slightly more than one in 50. Because our sample was stratified, we had to weight employee responses for analysis.

We subcontracted with the Sampling Section of the Survey Research Center of the Institute for Social Research, University of Michigan, to draw the sample. Telephone interviewing and data coding and entry were performed by Information Transfer Systems of Ann Arbor, Michigan. These two survey organizations were selected not only for their expertise, but also to help insure confidentiality. We used telephone interviews because of the advantages they provide, including opportunities for clarifying questions and prompting respondents for appropriate answers. Telephone interviews also provide a more controlled setting for conducting the survey as compared to mail surveys, thus reducing error. Response rates are also typically much higher, reducing potential bias. The response rate

for this survey was an unprecedented 94.5 percent. Interviews took place between January and May 1992. Employees spent an average of 45 minutes completing the interview.

## Results

The vast majority of Forest Service employees see the Agency headed in the right direction on policies dealing with important issues (as defined or described in the 1990 RPA). Employees are aware that a change in policy has taken place over the past 10 years and perceive these changes to be positive. The majority of employees also feel the Agency is placing more emphasis on non-commodity uses of the National Forests, with some decrease in emphasis on commodity uses. In spite of these perceptions of change, employees believe that the Agency has further to go to get to where it should be, and they have specific recommendations for what the Agency should do to get there.

### Employee Views of RPA Issues

We reviewed the 1990 RPA program and identified 11 issues that we believe represent the Forest Service's present and future challenges. The issues identified were:

- Loss of biological diversity
- Impacts on riparian areas
- Maintaining water quality
- Global climate change
- Threats to wilderness areas
- Meeting recreational needs
- Loss of threatened, endangered, and sensitive species
- Condition of National Forest rangeland
- Loss of old-growth forests
- Below-cost timber sales
- Clear-cutting

Interviewers asked employees a series of questions about each issue, including employees' perceptions of (1) the seriousness of the issue, (2) the commitment of the Forest Service to addressing the issue, and (3) changes in the policy over the past 10 years. For some issues we also asked employees if the Agency should take further action on the issue, and if so, what that action should be.

Seriousness of issue: During this part of the interview, employees were asked questions worded as follows (using threatened, endangered, and sensitive species as an example here and throughout the report):

*The Forest Service has indicated a commitment to recovering and protecting threatened, endangered, and sensitive species. In general, how serious a problem do you personally think the loss of threatened, endangered, and sensitive species is? Is it a very serious problem, somewhat serious, only a little serious, or not a problem at all?*

The vast majority of both line and staff rated all 11 issues as "very serious" or "somewhat serious" (Graph 1), however, employees perceive the condition of National Forest rangelands, clear-cutting, threats to wilderness areas, and below-cost timber sales as less serious than the other issues. Although the responses were similar for all employees, staff were more likely than line to rate an issue as "very serious." For 7 of the 11 issues, the differences between line and staff were statistically significant ( $\alpha = .01$  or better).

Commitment to addressing an issue: Next, employees were asked about the Forest Service commitment to the policy outlined in the 1990 RPA. Questions were worded as follows:

*How committed do you think the Forest Service is to recovering and protecting threatened, endangered, and sensitive species? Would you say very committed, somewhat committed, only a little committed, or not at all committed?*

Employees see the Forest Service as most committed to protecting wilderness areas; recovering and protecting threatened, endangered, and sensitive species; and better management of riparian areas (Graph 2). In general, there was an inverse relationship between the likelihood of a respondent indicating that a problem is "very serious" and the likelihood of indicating the Agency is "very committed" to addressing it. Line officers were more likely than staff to indicate that the Forest Service is very committed to addressing an issue. Differences were statistically significant for 8 of the 11 issues.

Changes in policy: To find out if employees are aware of the evolution or changes in Forest Service policy in recent years, we asked them, for each issue, a question worded as follows:

*Is the stated Forest Service policy on threatened, endangered, and sensitive species different from the policies over the past years?*



The vast majority of both line and staff felt that current policies to address these issues are different from the policies over the past 10 years. The vast majority of employees also indicated that the policies are either "much better" or "somewhat better" than the policies of the past. For 7 of the issues, more than 60 percent of both line and staff felt that current policies are better (Graphs 3 and 4). Very few employees indicated that the policies were unchanged over the past 10 years.

Need for further action: Although the above results indicate that employees believe the Agency is headed in the right direction on policies to address important issues, we also wanted to determine whether employees think that the Agency has gone far enough. For 5 of the Agency's most critical issues (threatened and endangered species, old-growth, National Forest rangelands, clear-cutting, and below-cost timber sales), we asked employees whether they felt that further actions should be taken, and if so, what those additional actions should be. Questions were worded as follows:

*Do you think there are any further actions the Forest Service should be taking regarding threatened and endangered species?*

If the employee answered "yes" they were also asked:

*What further actions should the Forest Service be taking regarding threatened and endangered species?*

We limited this portion of the questionnaire to 5 issues because we needed to keep the time required for the interview to a reasonable length.

A substantial proportion of all employees (about 50 percent of the staff and 60 percent of the line) felt that further actions are needed on these issues (Graph 5). So, although we saw earlier that the vast majority of employees feel that the Agency is headed in the right direction in addressing these issues, employees nevertheless feel that the Agency is not yet quite where it should be. Specific recommendations given by respondents concerning further actions on these issues are currently being analyzed, and will be presented in an expanded report on the survey to be released at a later date.

## Employee Views of the Agency's Multiple Use Objectives

Changes in emphasis: To get another view of changes occurring within the Agency, we asked employees to consider the Agency's multiple use objectives, and whether the Agency's emphasis on a particular use had changed over the past 10 years. For this part of the survey, we identified 7 multiple use objectives: timber, grazing, recreation, wildlife and fish, water, minerals, and wilderness. Questions were worded as follows (using wildlife and fish as the example):

*Over the past 10 years, has emphasis on wildlife and fish increased a great deal, increased somewhat, stayed about the same, decreased somewhat, or decreased a great deal?*

In general, employees believe that the Agency emphasis on non-commodity uses of the National Forests has increased in recent years, while emphasis on commodity uses has decreased or stayed about the same (Graphs 6 and 7). Almost all line and close to 90 percent of all staff employees feel that the Agency has increased emphasis on wildlife and fish. Similarly, more than 90 percent of the line and 80 percent of the staff feel the Agency has increased emphasis on recreation. A large majority of employees also indicate that the emphasis on wilderness and water has increased. At the same time, a majority of all employees indicate that emphasis on commodity uses (timber, grazing, and minerals) has decreased or stayed about the same.

Importance of Multiple Use Objectives: Do employees feel that these changes in emphasis mean that the Forest Service is headed in the right direction? We followed the emphasis questions by asking employees to rank, in order of importance, 5 traditional multiple uses of the National Forests (timber, grazing, recreation, wildlife and fish, and water). First, we asked employees to focus on what they feel should be the most important uses of the National Forests, then how important they feel the uses are to the Agency. The list of multiple use objectives was shortened because of the difficulty for employees in ranking over the telephone more than 5 items. We first asked employees the following:

*I will ask you some questions to help you rank these 5 uses according to how important you as an individual think each of these uses of the National Forests should be. Of timber, grazing, recreation, wildlife and fish, and water, which of these 5 uses is the most important to you personally?*

We next asked, of the remaining 4 uses, which is least important; then of the remaining 3 uses which is the most important; and finally, of the remaining 2 uses which is least important. Using this approach allowed us to produce a ranking of the 5 multiple uses from most important to least important.

We then followed the same process, asking employees to rank the order of importance of the 5 traditional multiple uses to the Forest Service. Specifically, we asked:

*Now please think of these objectives again, including: timber, grazing, recreation, wildlife and fish, and water. This time I will ask about how important you think each use is to the Forest Service. First, which of timber, grazing, recreation, wildlife and fish, and water is the most important to the Forest Service?*

During the survey, some employees made the point that the Agency's multiple use philosophy means that all uses are important, and that it would therefore be impossible for them to pick one use as the "most important." We did not explicitly offer employees the option of answering "all are most important" or "all are equally important," but we did note if employees volunteered this as a response. A future study might explicitly include such an option and assess whether a different pattern of responses is yielded. Nevertheless, the two rankings contrast an individual's perceptions of what the most important use of the National Forests should be with what the most important use is to the Agency. By comparing employees' perceptions of what should be most important with their perceptions of what is most important to the Agency, we can make statements about the need for further change.

More than 70 percent of all employees felt that a non-commodity use (wildlife and fish, recreation, and water) should be the most important use of the National Forests (Graphs 8 and 9). In contrast, only 14 percent of the line and 22 percent of the staff thought timber should be the most important use, and far fewer yet chose grazing. The remaining 10 percent of line employees and 4 percent of staff employees volunteered either "all are most important" or a "don't know."

Contrasting sharply with employees' views of what should be the most important uses, are their views of what are the most important to the Forest Service. The vast majority of all employees (more than 60 percent of line and more than 70 percent of staff) felt that timber is the most important use to the Agency. So, although the vast majority of employees feel that the Agency has increased its emphasis on the non-commodity uses of the National Forests over the past 10 years, employees personally feel that non-commodity

uses should be more important to the Agency. This would suggest that the Forest Service has further to go in achieving a balance in emphasis identified as most ideal by Forest Service employees.

### Employee Views of Below-Cost Timber Sales and Clear-Cutting

Two management practices have received a great deal of attention within the Agency and in the public arena—below-cost timber sales and clear-cutting. Although the Forest Service has modified policies and accounting practices to address both issues, employees also feel that the Agency has further to go. We should note that this survey was conducted prior to direction issued by the chief of the Forest Service in June 1992 regarding clear-cutting on the National Forests. This timing provides an opportunity to use these findings as a baseline, against which changes in response to the chief's directions can be measured.

The vast majority of employees indicate that in some cases, below-cost timber sales are justified (Graph 10); however, over half of all employees feel that there are too many below-cost timber sales on the National Forests. Likewise, the vast majority of employees feel that clear-cutting is an acceptable management practice (Graph 11), but the vast majority also feel that there is too much clear-cutting on the National Forests.

### Identifying Changes within the Agency

That employees feel that the Agency is headed in the right direction, but has further to go to get where it should be, is further demonstrated by responses to the following two open-ended questions. First, we asked employees:

*Briefly, what do you think have been the most important positive changes in the Forest Service over the past 10 years?"*

We followed this question by asking:

*Briefly, what do you think have been the most important negative changes in the Forest Service over the past 10 years?"*

In our analysis, we coded up to 5 responses per question, although most employees volunteered only one or two.

The most often mentioned positive changes were increased responsiveness to the public (40 percent of line and 29 percent of staff), and increased emphasis on noncommodity uses (30 percent of line and 31 percent of staff) (Table 2). These responses indicate that, in these areas, a significant proportion of employees feel that the Agency is headed in the right direction. Obviously, these responses do not tell us whether employees feel the Agency has gone far enough. We did ask employees, "What do you think is the single most important change that still needs to be made?" Responses to this question are currently being analyzed.

With regards to negative changes, increasing political pressure on the Agency was the most often mentioned change (offered by 24 percent of the line and 15 percent of the staff) (Table 3). Changes related to the loss of direction/mission, poor leadership, and the Agency becoming overly responsive to political pressure were also mentioned by a significant percentage of employees. Many of the negative changes mentioned affect employees in day-to-day operations—affirmative action; poor work conditions, low moral, and stress; and insufficient funding. It's also important to note that some of the important negative changes listed in Table 3 may be beyond the Agency's control.

### Work Force Diversity

Both line and staff employees mentioned work force diversity (including diversity in gender, race, and discipline) as one of the most important positive changes to have occurred in the Agency in the past 10 years (Table 2). Interestingly, although both line and staff mentioned work force diversity in almost equal proportions, we found that in actual makeup, there is a considerably greater degree of diversity at the staff than line level.

First, differences in the diversity of line and staff can be seen in terms of length of service (Graph 12). We found that only 6 percent of the line have entered the Agency within the past 10 years compared to 31 percent of the staff (the contrast, in a large part, is due to the time required for promotion into line positions). There is also greater diversity at the staff level in terms of gender (37 percent of staff are women, 12 percent of line) and race (13 percent of staff are minorities, 8 percent of line). All of these differences are statistically significant at the .0001 level of significance or better.

A greater range of disciplines is also represented at the staff level (Graph 13). More than half of the line report their most recent degree to be in forestry compared to 35 percent of college graduates among staff (55 percent of all staff have college degrees). Ninety percent of line employees have their most recent degree in a natural resource field compared to 66 percent of staff who have degrees. There is virtually no one in a line position that

claims a degree in the social sciences or humanities as his or her most recent degree. This contrasts with 16 percent of the college graduates among staff.

One of the anticipated benefits of workforce diversity is that it would result in a diversity of views and perspectives within the Agency. For the most part, we did find statistically significant differences ( $\alpha = .05$  or better) in views among various sub-groups in the Forest Service. However, differences tended to be mainly in degree rather than in the direction. For example, the majority of employees at both the high and low end of the Agency's hierarchy tended to rate the same issues (such as biodiversity, old-growth forests, below-cost timber sales) as representing serious problems. However, there tended to be a larger proportion of employees at the lower end of the hierarchy who made such ratings. Likewise, the majority of employees at both ends of the Agency hierarchy tended to indicate that the Agency was either "very committed" or "somewhat committed" to addressing these problems. However, a somewhat larger percentage of employees at the upper end did so. Similar patterns were seen when we compared women and men, as well as different disciplines, ages, and length of service. Such patterns were also found between whites and minorities. The inter-relationships of these background characteristics and employees' views is currently being further examined.

### Summary

To summarize, we found from our survey of Forest Service employees that the vast majority see change in the Agency's policies over the past 10 years. The vast majority see the Agency headed in the right direction. However, they also feel that the Agency is not quite where it should be. Based on preliminary analysis of key questions, we are finding that employees have specific ideas of what changes are needed, and that there is a great diversity of opinion. Employees' responses and suggestions for specific actions will be reported at some future date.

Table 1.—Distribution of sample among employee categories

Category	In work force <sup>1</sup>	In sample
Upper Line		
Number	209	185
Percent	1	10
Lower Line		
Number	801	680
Percent	2	38
Total Line		
Number	1,010	865
Percent	3	48
Upper Staff		
Number	6,548	282
Percent	19	16
Middle Staff		
Number	19,540	521
Percent	56	29
Lower Staff		
Number	7,732	141
Percent	22	8
Total Staff		
Number	33,820	944
Percent	97	52

<sup>1</sup> Estimated from the Agency work force database.

Table 2.—Percent of Forest Service employees giving the following responses in answer to the question "What do you think have been the most important positive changes in the Forest Service over the past 10 years?"

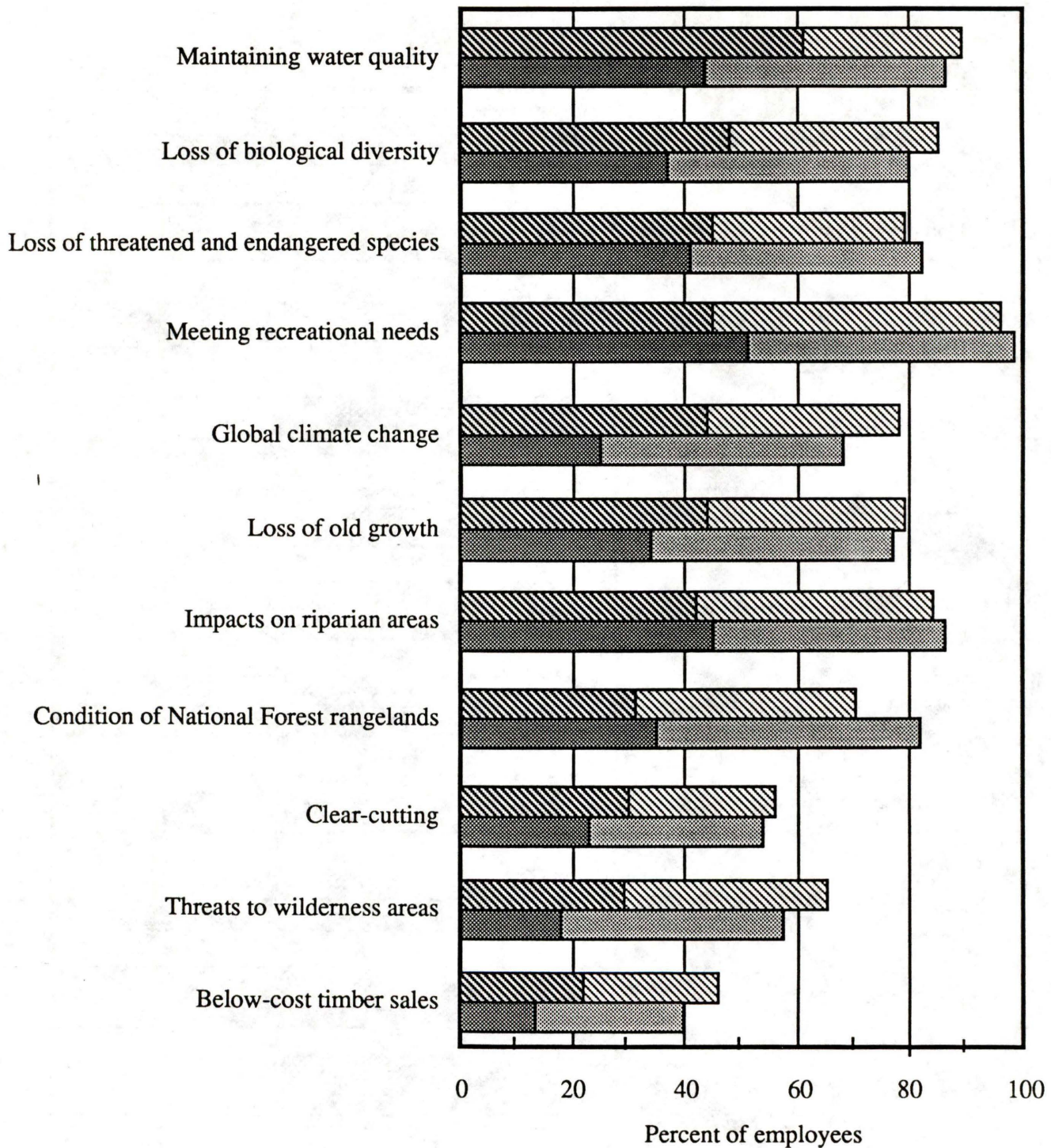
Response	Line	Staff
Increased responsiveness to the public; increased use of public involvement	40	29
Increased emphasis on noncommodity uses; decreased emphasis on commodity uses	30	31
Diversification of the workforce	18	16
Better work conditions, better communications, more openness	17	13
Increased environmental awareness/sensitivity	10	15
Increased emphasis on ecosystem/biological diversity	10	7
Improvements in the planning process	9	6
More balanced program; better resource balance	9	4
More disciplines involved in planning/decision-making	8	5
Increased emphasis on forest plans	7	3
Increased emphasis on multiple use; more honest attempt to implement multiple use	4	6
Increased concern about soil and water quality	2	5
Other/miscellaneous	33	36



Table 3.—Percent of Forest Service employees giving the following responses in answer to the question "What do you think have been the most important negative changes in the Forest Service over the past 10 years?"

Response	Line	Staff
Increasing political pressure on agency; outside interference	24	15
Loss of direction/mission; poor leadership	18	12
Agency becoming overly responsive to political pressure; moving away from sound scientific management	14	10
Too much red tape, paperwork, procedures; too many obstacles to getting the job done	9	4
Affirmative action; workforce diversity; reverse discrimination	8	11
Insufficient funding	8	8
Poor work conditions; low moral; stress	7	7
Too many appeals and litigation	7	4
Continued or increased commodity emphasis; commodity outputs still too high	5	7
Loss of public confidence/support	5	3
Other/miscellaneous	36	36

Graph 1.—Percent of Forest Service employees indicating that an RPA issue is very serious or somewhat serious

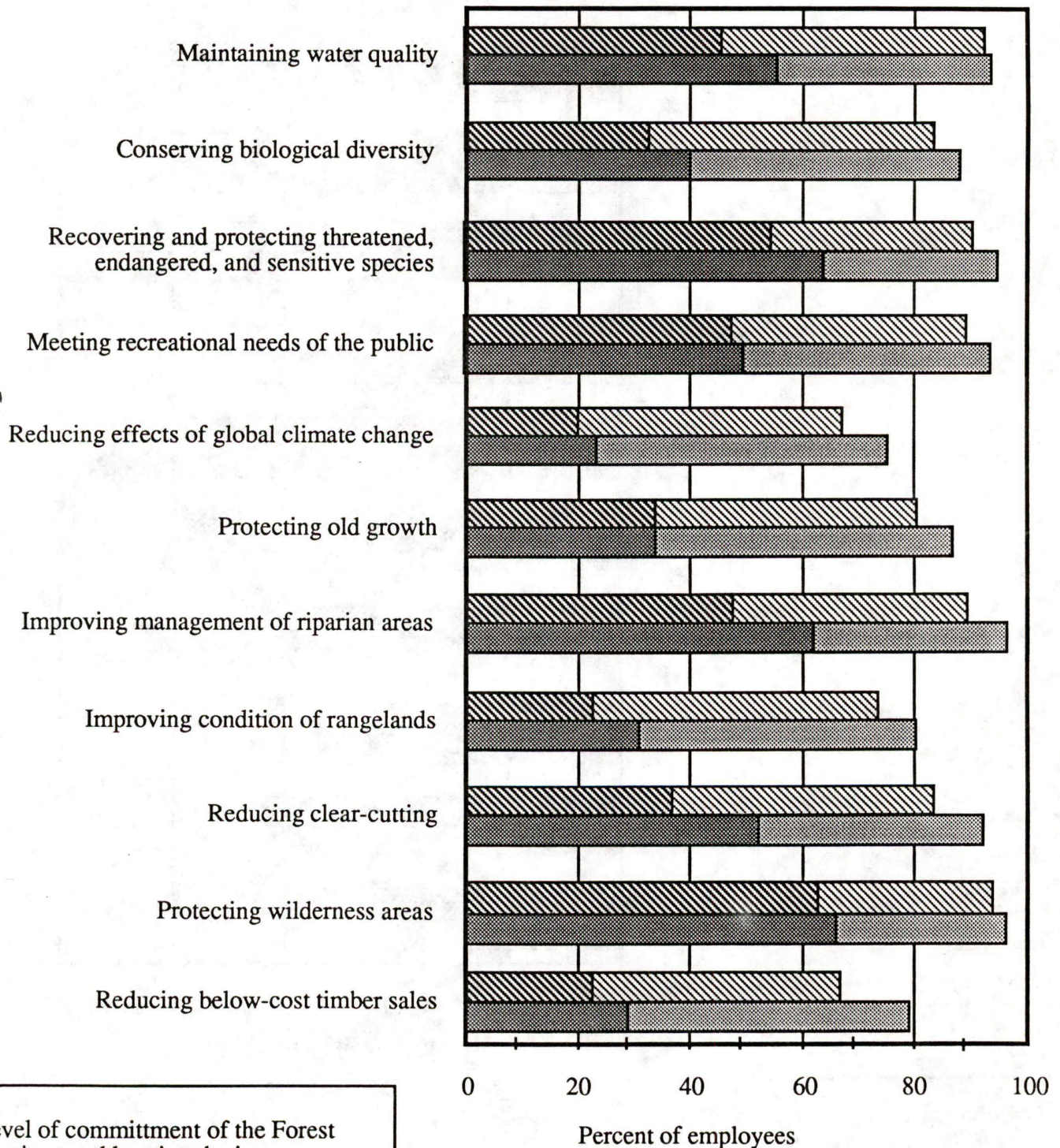


Forest Service 1990  
RPA issue is

Key	Staff	Very serious	Somewhat serious
	Line		



Graph 2.—Percent of Forest Service employees indicating that the Agency is very committed or somewhat committed to addressing an RPA issue

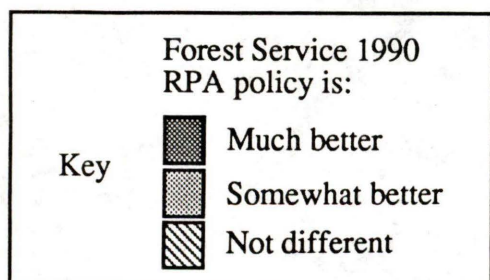
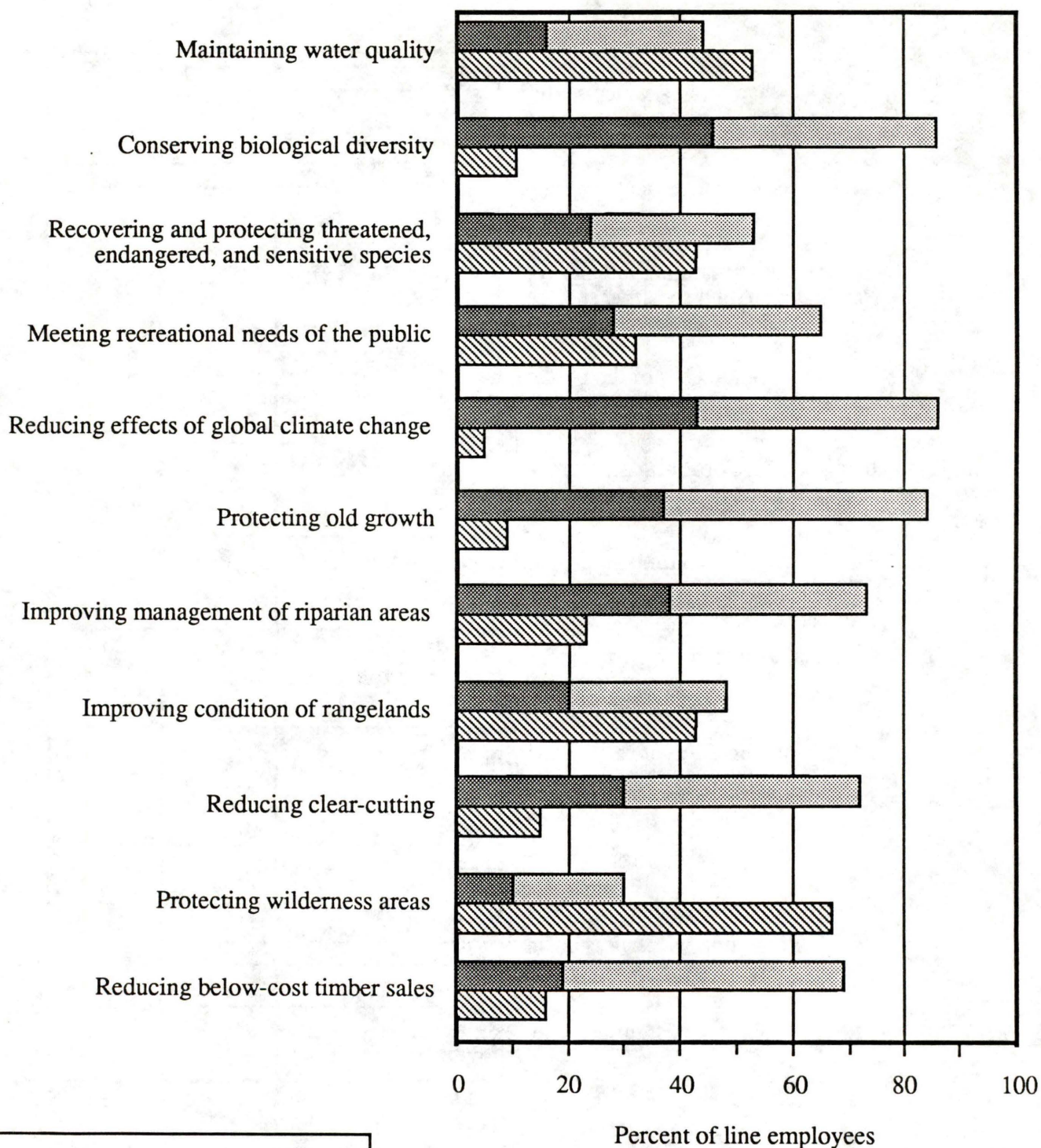


Level of commitment of the Forest Service to addressing the issue:

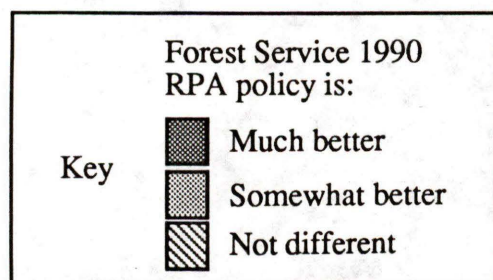
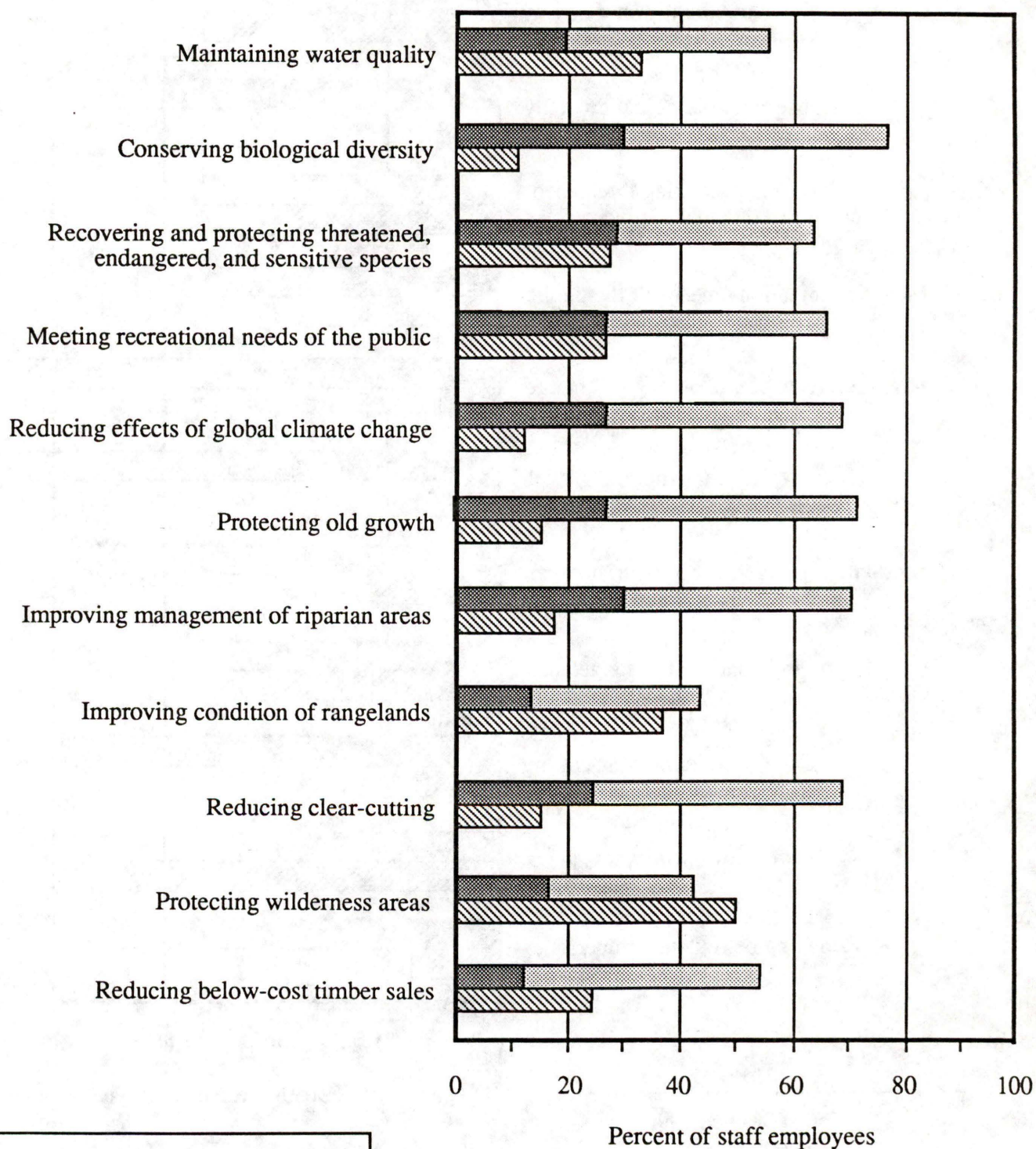
Key	Staff	Very committed	Somewhat committed
	Line		



Graph 3.—Percent of Forest Service line employees indicating that the Agency's policy in the 1990 RPA is better (much better or somewhat better) or not different from related policies over the past 10 years

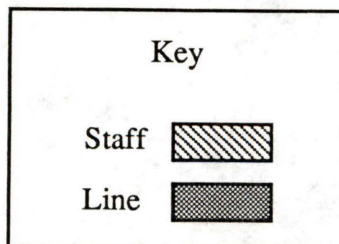
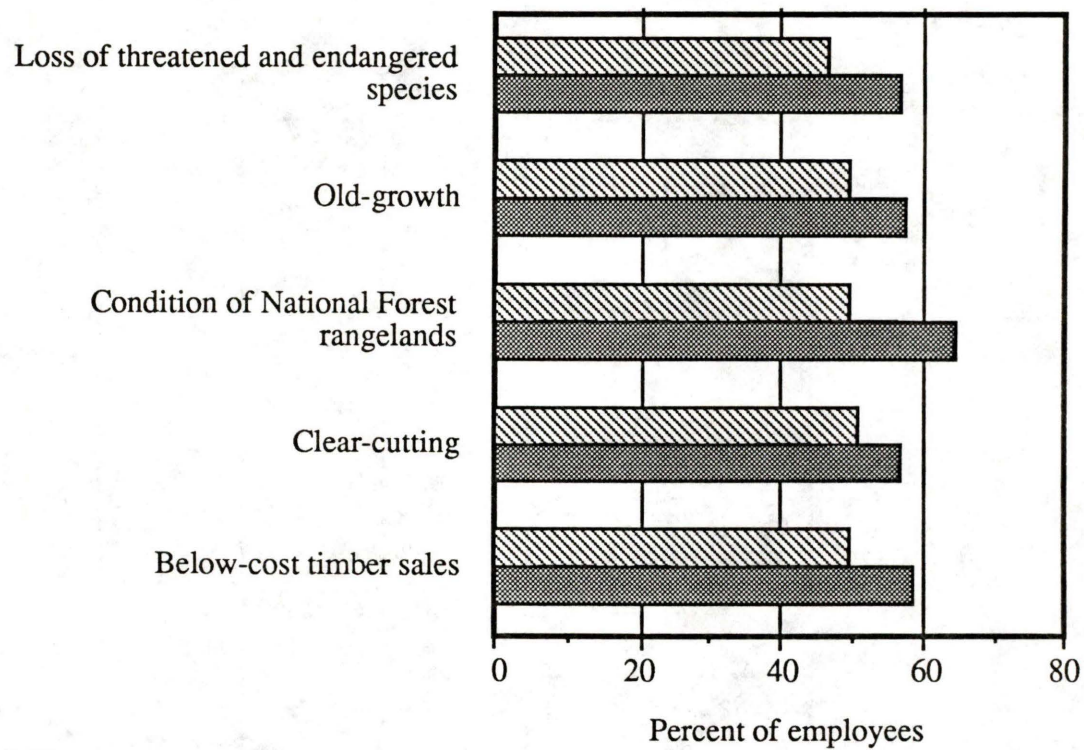


Graph 4.—Percent of Forest Service staff employees indicating that the Agency's policy in the 1990 RPA is better (much better of somewhat better) or not different from related policies over the past 10 years

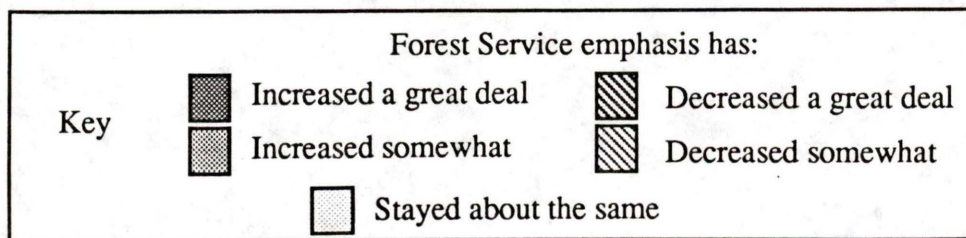
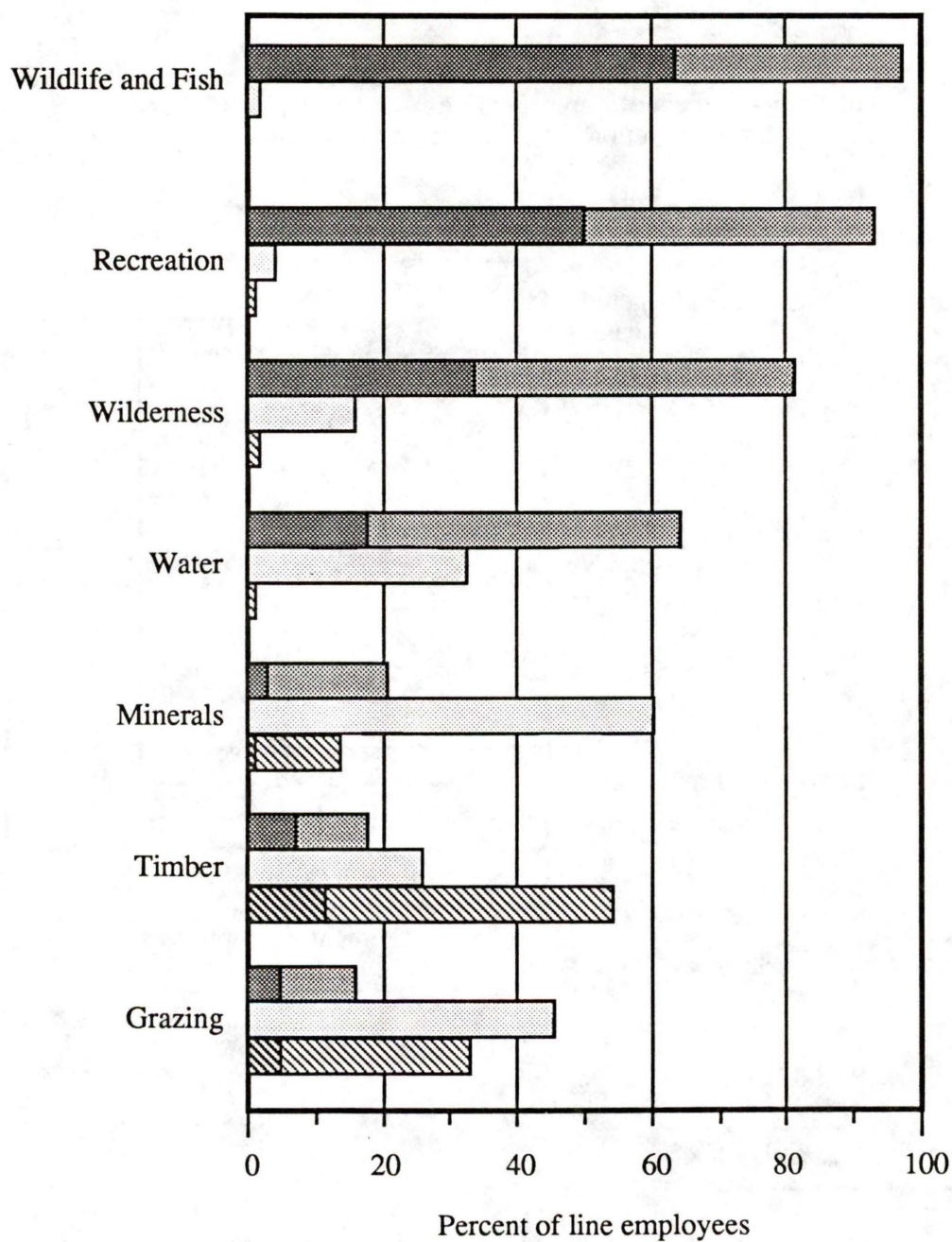




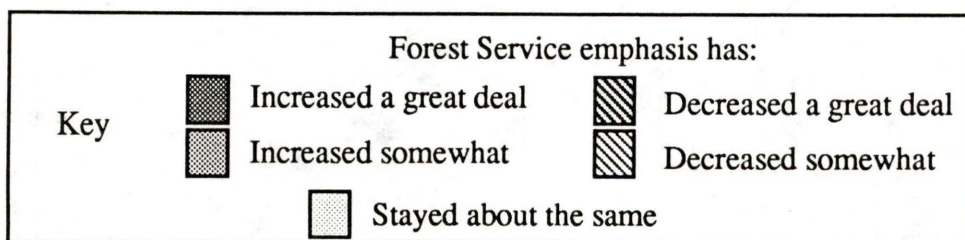
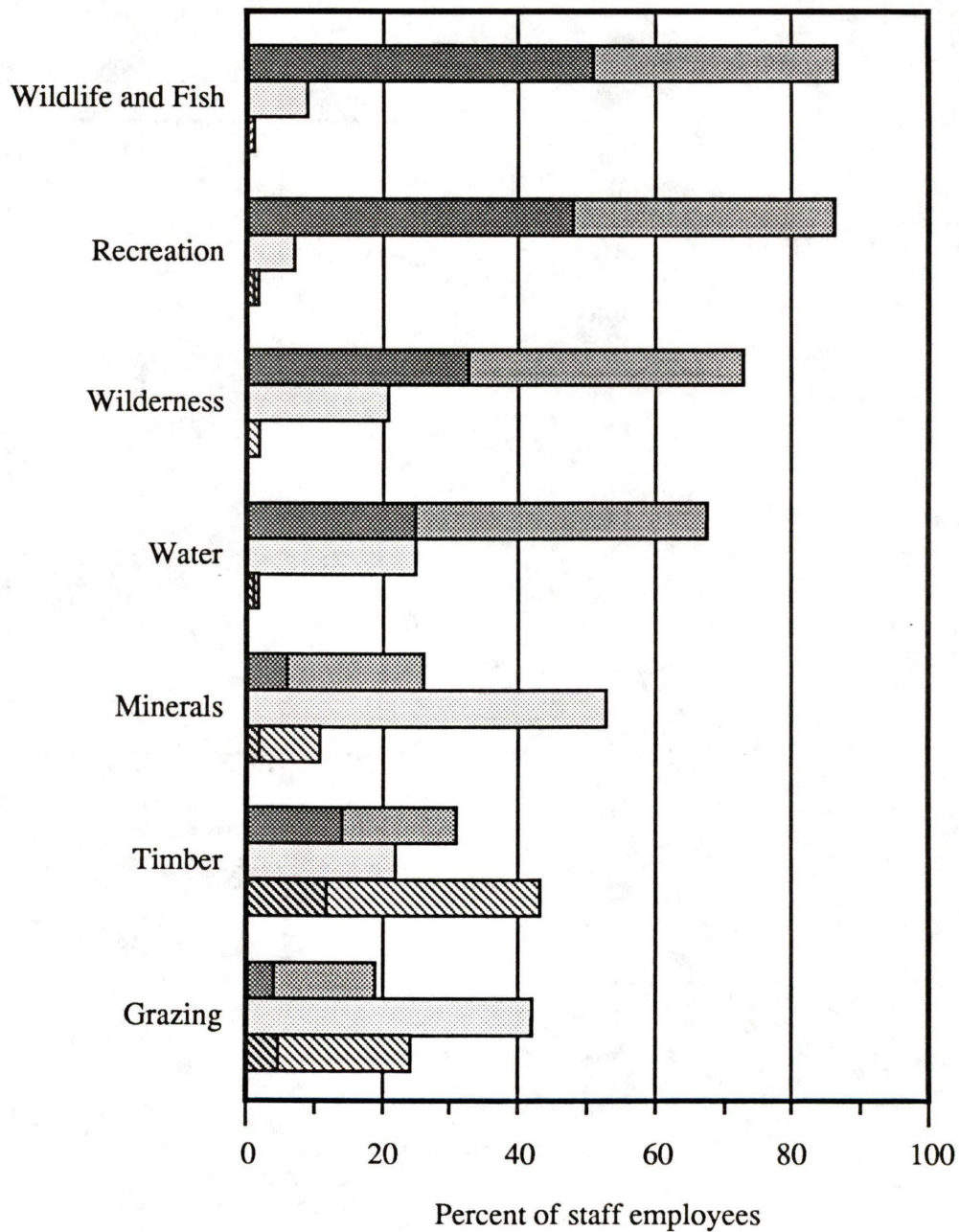
Graph 5.—Percent of Forest Service employees indicating that further action should be taken on an issue



Graph 6.—Percent of Forest Service line employees indicating that the Agency's emphasis on a use has increased (increased a great deal or increased somewhat), decreased (decreased a great deal or increased somewhat), or stayed about the same

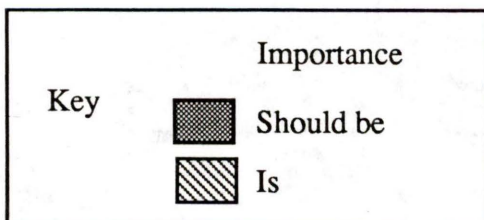
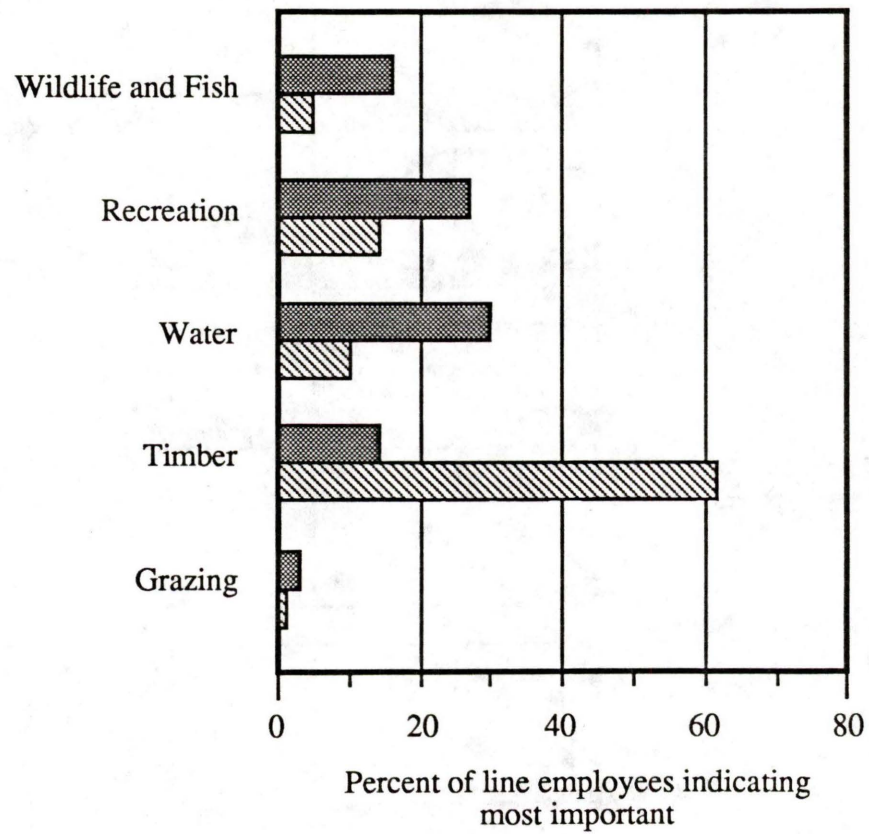


Graph 7.—Percent of Forest Service staff employees indicating that the Agency's emphasis on a use has increased (increased a great deal or increased somewhat), decreased (decreased a great deal or decreased somewhat), or stayed about the same

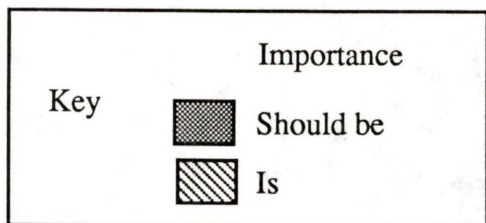
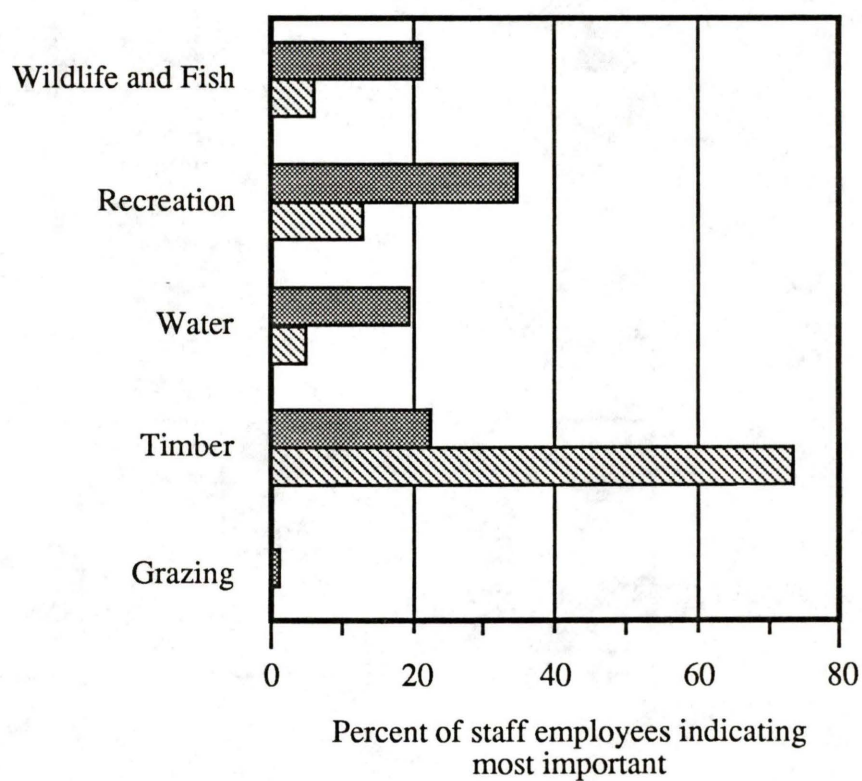




Graph 8.—Percent of Forest Service line employees indicating that an objective should be the most important to the Agency, and the percent indicating that an objective is the most important to the Agency

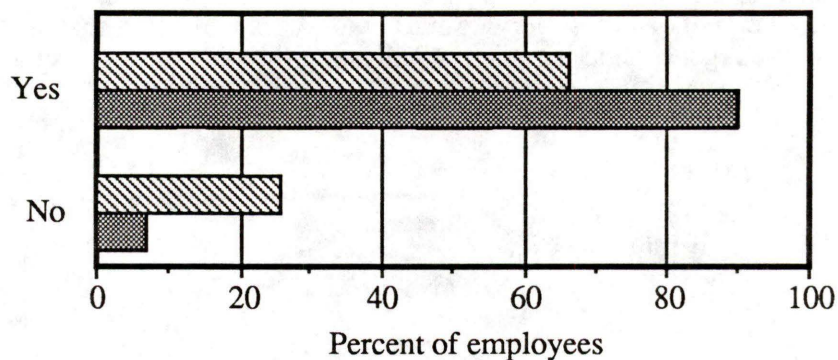


Graph 9.—Percent of Forest Service staff employees indicating that an objective should be the most important to the Agency, and the percent indicating that an objective is the most important to the Agency

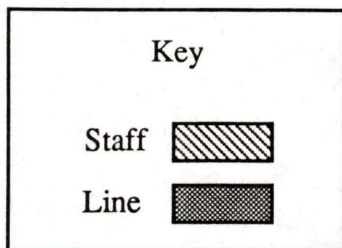
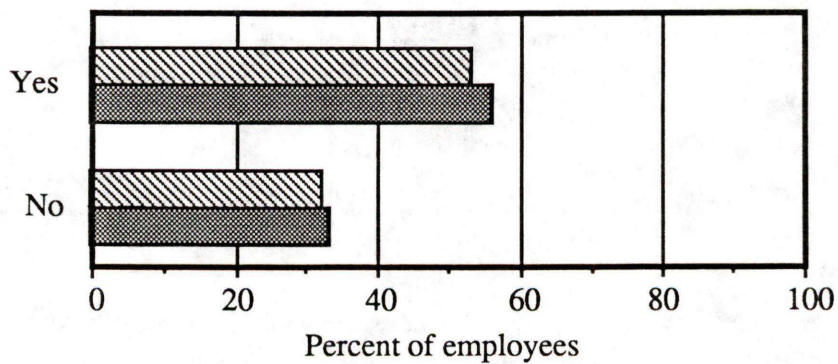


Graph 10.—Opinions of Forest Service employees on below-cost timber sales

Do you think that in some cases below-cost timber sales are justified?

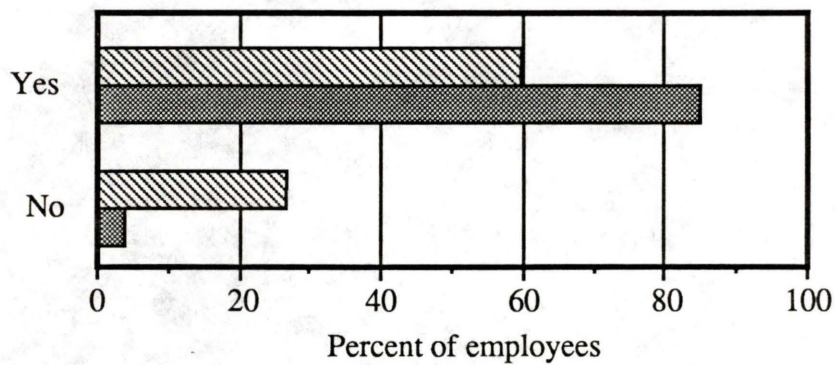


Do you think there are too many below-cost timber sales in the National Forests?

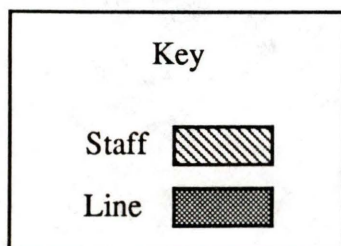
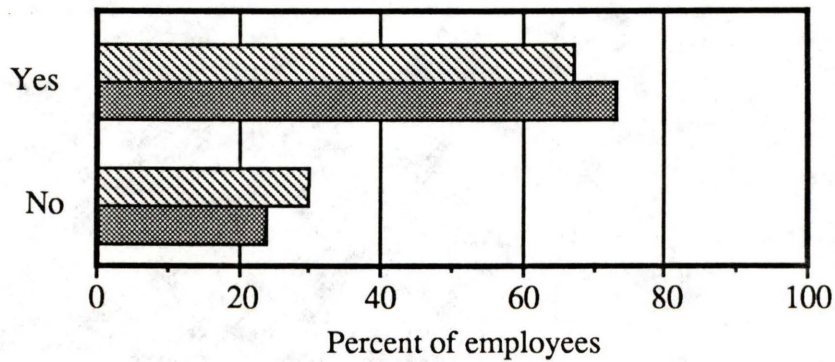


Graph 11.—Opinions of Forest Service employees on clear-cutting

Do you think clear-cutting is an acceptable management practice?

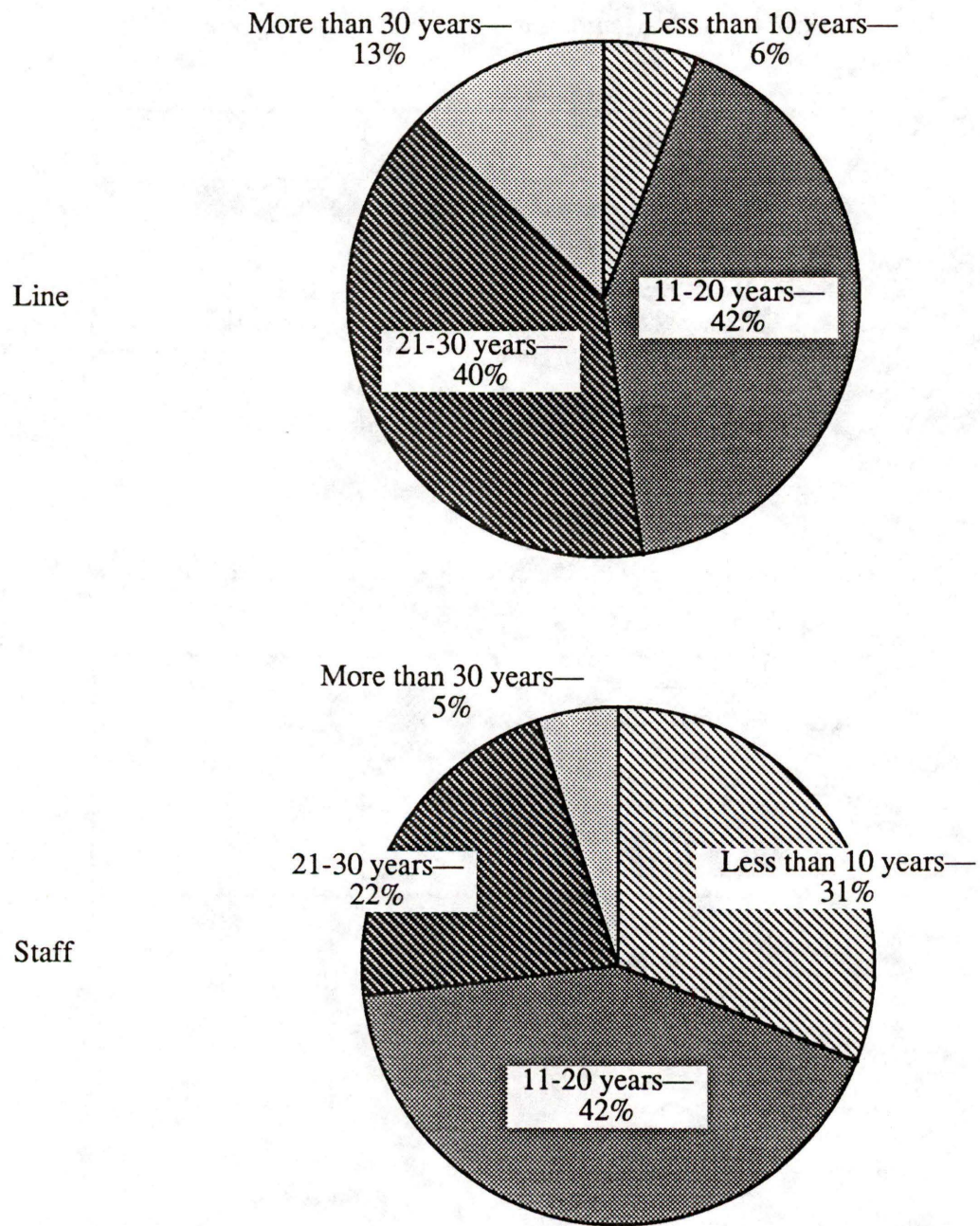


Do you think there is too much clear-cutting in the National Forests?





Graph 12.—Distribution of Forest Service employees by years of service



Graph 13.—Distribution of Forest Service employees by discipline

